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Department of Public Health

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No. 10

MONTANA STATE BOARD OF HEALTH

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HELENA, MONTANA

Published Monthly at Helena, by the State Board of Health.

"The science of disease prevention, if properly applied, can add fifteen years to the present average length of human life."—Prof. Irving Fisher, Yale.

This Bulletin will be mailed monthly to any person in Montana upon request mailed to the Secretary of the State Board of Health at Helena.



The following decision is of special interest to druggists. Information of this kind will be published from time to time in our monthly bulletin.

We are sending a bulletin this month to each druggist whose name we have been able to secure. Future copies will not be sent unless you ask for them. We cannot send them out indiscriminately.

I also wish to call the attention of the physicians to this fact. I believe that some of the physicians do not care to receive this Bulletin. Next Month's issue will be sent only to those who have asked that their names be placed on the mailing list.

Helena, Montana, January 6th, 1912.

Dr. T. D. Tuttle,

Secretary State Board of Health,
Helena, Montana.

Dear Sir—

I acknowledge receipt of your letter asking for a construction of Chapter 130, Laws of 1911, as to what drugs or compounds shall bear upon the label a statement of the quantity or proportion of the drugs named in sub-division 2, Section 8 of said Chapter.

It is fundamental that druggists are charged with the knowledge of the properties of the drugs and medicines they sell. Said Chapter 130 in Sub-division 1, of Section 2, thereof clearly recognizes the United States Pharmacopoeia and National Formulary and the names of drugs and medicines used therein. Hence in dispensing or selling a drug or compound so recognized the same may be sold under or by the name recognized in the United States Pharmacopoeia or National Formulary and without any statement as to the proportion of the ingredients. This applies not only to compounds and drugs sold in original packages but also to compounds which are prepared by the druggist from others which are so recognized. From this statement we may deduce the following general rules:

1. The official preparation or compound, that is, one recognized in the United States Pharmacopoeia or National Formulary may be dispensed and sold by druggists under or by the name there given it without any "statement on the label" of the proportion of the ingredients.

2. Where two or more of such official preparations, drugs or compounds are mixed by the druggist and the compound thus formed is one recognized in the United States Pharmacopoeia or National Formulary, then such compound may be

dispensed or sold under and by the name or designation there given it and without any statement on the label of the proportion of the ingredients.

3. Where such new compound formed by the mixing of two or more of such official preparations or compounds is not recognized in the United States Pharmacopoeia or National Formulary, then this statement on the label must name the proportion of the ingredients as required by Sub-division 2, of said Chapter 130.

4. Where the new compound is formed by the mixing of ingredients or compounds not recognized in the United States Pharmacopoeia or National Formulary, or by the mixing of a compound that is so recognized with one that is not recognized and the new compound in either case is not one recognized by the United States Pharmacopoeia or National Formulary, then the Statement on the label must name the proportions of the drugs named in said Sub-division 2, of Sec. 8, Chap. 130.

5. "Extemporaneous preparations," that is, those put up at the time on call and not sold as a distinctive, specific, peculiar, particular or distinguishing compound, that is, one not kept in stock or prepared or sold under a trade name or characteristic, need not bear a statement on the label of the quantity or proportion of the drugs named in said chapter.

It must be kept in mind, however, that this has no reference to Chap II, Laws of 1911, regulating the dispensing, selling or giving away of opium, morphine, etc.

Yours very truly,

(Signed) ALBERT J. GALEN,

Attorney General.

Last Fall the members of the State Board of Health and three other citizens donated one hundred dollars to be given as prizes for the best essays submitted on the following subjects: "Tuberculosis, how it is spread and how it may be prevented," "Evils of the Common House Fly, and how it may be eradicated," and "A Description of a Dirty Back Yard and the evils of such yard."

About four hundred essays were submitted in this competition, which was confined to the school children of the State up to and including, the eighth grade.

It is remarkable to note that not a single prize, first or second, was awarded to any essay that came from a city of five thousand or more inhabitants. What do you think of this? Is it the result of better work on the part of the children in the small towns and country districts, or must we look to the high priced city teacher for these results, or lack of results?

The following is the essay on tuberculosis which was awarded the first prize.

TUBERCULOSIS.

How It May Be Prevented, Its Cause and Treatment.

(By Lydia Winter, Eighth Grade Pupil, Chinook, Mont.)

Tuberculosis causes more deaths than any other disease. It may be prevented by right measures, vigorously carried out, and owes its prevalence partly to ignorance, partly to carelessness. A realization of the significance of the fact that one seventh of all deaths are caused by a disease which, by the employment of right means, is wholly preventable, should lead us to sense the gravity of the tuberculosis problem and the importance of thoroughly preventive measures.

Tuberculosis is a transmissible disease. That is to say, every consumptive patient has received the infection from some other person or some animal which had the disease. It is caused by the presence in the tissues of a minute organism, the tubercle bacillus, which has come from a previous case of the disease. This comparatively slow growing organism, coming in contact with tissues already weakened by unsanitary conditions, such as insufficient air and sunlight, improper food, intemperance, or exhausting excesses, finds a soil well adapted to its growth, and establishes itself, producing the various dis-

ease-processes collectively known as tuberculosis.

By many, tuberculosis is known as a house disease, from the fact that one case of tuberculosis in a building is very likely to be followed by other cases. Formerly this was attributed to hereditary transmission; but now it is known that this so-called hereditary transmission is very largely a matter of personal infection. Wherever the consumptive dwells, unless he has been carefully instructed regarding the care of his sputum, and is conscientious in following this instruction—tubercle bacilli are present in the carpets, clothing, and bedding, and are raised into the air at every sweeping. Nearly always, when an older member of the family has tuberculosis in an advanced form,—and when a person can be recognized as a consumptive, the disease is in an advanced form,—one or more of the children, on careful examination will be found to have contracted the disease.

Some people believe tuberculosis to be entirely or largely an air-borne disease, the result of inhaling dried expectorations. Yet others believe it to be largely a milk-borne disease, owing to the fact that a large proportion of dairy cattle are tuberculous, and tubercle bacilli are not infrequently found in a live state in milk and butter, which foods are largely used in an uncooked condition.

The evidence indicated that each of these are important means of transmission, and that in order to make successful warfare against tuberculosis, it will be necessary to avoid both house infection and milk infection.

Undoubtedly the dust from dried sputum in the streets is a source of danger, but not so much as in buildings; for a few hours' exposure to sunlight is sufficient to destroy the tubercle bacilli. In order to avoid all danger from this source, it is important to avoid spitting in the streets, and especially on the sidewalks. Most important, however, is the caution against spitting in street-cars, public buildings, etc., except in the cuspidors placed for the purpose.

There is another source of danger in the home, even when one is comparatively careful with the sputum. When the consumptive coughs, and to a less extent when he talks, minute droplets of saliva are dislodged from the mouth and float in the air, to be inhaled in their moist condition by others, or to fall to the floor, and be raised later on as dust when sweeping.

If a consumptive lives in the house, have him take great care that none of his sputum contaminates in any way, any floor, bedding, clothing, etc. The sputum should never be caught in a handkerchief, where it will dry and infect the air when the handkerchief is used later, but in paper napkins, which can be burned before they become dry, or in a vessel containing some disinfectant solution.

The patient should be careful not to talk directly into the face of anyone and while coughing, should hold a handkerchief before the mouth and should never under any circumstances kiss anyone on the mouth. In fact the custom of kissing on the mouth is never free from the danger of transmitting disease germs, even when no disease is known to be present.

The patient should never use a drinking cup used by others; and his dishes, clothing, bedding, etc., should all be scalded after using.

One should never occupy the same room with a consumptive, nor any that has been used by a consumptive, until it has been thoroughly fumigated, the carpets and bedding changed or disinfected, and the woodwork gone over with disinfectant solution.

Except in the few states where registry laws provide for oversight of consumptives by the health authorities, it is not safe to move into a vacant house without first giving it a fumigation and a thorough cleansing.

In a house occupied by a consumptive, it is well occasionally to use disinfectant on the woodwork and floors, and to disinfect clothing and bedding—at least the sheets, by boiling water or steam heat. Articles that cannot be subjected to moist heat may be disinfected by means of oven heat, just short of the scorching temperature. The upper sheet should be long enough to permit of its being folded down for about two feet as a protection to the spread.

Carpets are an abomination in a consumptive's room and should never be allowed. A clean smooth wood floor is much to be preferred.

In the streets, ladies should avoid wearing dresses long enough to touch the sidewalks and streets, and thus avoid dragging into the home myriads of tubercle and other germs. The Oriental custom of leaving the street shoes at the door—using slippers or sandals in the house, would not be at all bad.

It is unwise to drink out of a public drinking-cup. If at anytime it is necessary to do this, the lips should not touch the edge of the cup.

Always have an abundance of oxygen, summer and winter. It is hardly necessary to give this advice for the summer weather; but in winter there is a strong temptation to economize by shutting out the pure air. This is expensive economy, if health is worth anything. As far as possible, avoid assembly rooms which are poorly ventilated; it is impossible to ventilate over-crowded rooms properly.

One measure of supreme importance is to keep the general health in prime condition. It is the run-down person that the tubercle germ seizes as its prey. By means of all rational hygienic measures maintain the bodily condition above the disease level.

It is just as necessary to have the tubercle bacilli planted within the body in order to develop tuberculosis, as it is to plant wheat in the earth in order to have a crop of wheat. The farmer who does not wish to raise wheat, must not sow wheat; so the man who wishes to escape tuberculosis will do so by preventing the entrance into his body of the tuberculosis seed, which alone can produce the disease. One who is successful in this will never die of tuberculosis.

Impure air, poor food, over-exertion, exposure, all act injuriously upon the body; but of themselves they cannot produce tuberculosis. They may and do undermine the system, and lower the resisting power, or vitality of the tissues, and thus prepare the soil for cultivation of the tubercle bacillus; but separately or collectively, they cannot cause one case of tuberculosis.

Because tuberculosis affects the lungs much more frequently than other tissues of the body, it has been thought that the tubercle bacilli gain entrance into the body through the air-passages but it is now generally conceded that they may gain admission to the body, and even to the lungs, through the alimentary passage. Some even think the alimentary tract is the chief door by which the tubercle bacilli gain entrance into the body. It has been known that three hours after the bacilli have been fed to guinea pigs, they may be detected to the lungs.

Tubercle bacilli thrive on tissues that have lost the power of

self protection. The barriers of defense must be broken down before the tubercle bacilli can injure any portion of the body. The breathing of impure air, the inhalation of tobacco smoke, the use of impure foods, underfeeding and over-feeding, intemperance and other excesses, sedentary habits, over-taxation, and loss of sleep, all act as predisposing causes of tuberculosis.

Much to prevent the dissemination of tubercle bacilli, has been accompanied by segregating consumptives, by forbidding promiscuous spitting, and by similar measures; but while the human consumptive has acted an important part in disseminating the disease, the use as food of products from tubercular animals has not received the attention it demands.

A cow may be sleek and fat, and have the appearance of good health, and yet have tuberculosis and be discharging tubercle bacilli in her milk. It is estimated by a competent authority that one fourth of our milch cows have tuberculosis. There are probably few dairies that have not one or more tuberculous cattle in the herd.

When hogs are fed with milk from infected cows, or when they are allowed to follow tubercular cattle in the field, they become tuberculous.

Children are in especial danger because they are fed largely on milk, and with the young of all animals, babies have less resistant power than those who are older, against germ action.

Tubercular infection invariably takes place in childhood from milk, and the germs remain latent because of the active out door life of the child; but during school days, when the child is forced to remain much indoors and to breathe impure air, the lowered vitality of the tissues favors the growth of the germs and the development of tuberculosis.

It has been shown that tubercle bacilli in butter may remain alive for several months, and retain their power of transmitting the disease. From the fact that the cream, in separating from the milk carries with it ninety per cent of the tubercle bacilli, butter is likely to contain tubercle bacilli, in greater proportion than the milk from which it is made. Cheese is another product that may contain active tubercle bacilli.

The danger of infection from milk may be avoided by boiling it or pasteurizing it; that is heating it to a point just below boiling, and keeping it at that temperature for twenty minutes.

We have discovered that tuberculosis may be cured by fresh

air. It was at first supposed that fresh air is a curative because tuberculosis is a lung disease. Now we know that tuberculosis of the joints, bones, and glands, may be cured by fresh air, or rather that fresh air builds up the vital resistance of the body, so that it can throw off the disease. Many other diseases are cured by fresh air. Breathing is the most important active function of the body, and all other functions depend upon it. Primarily we live on air. Deep breathing as a fine art has to be taught! The majority of the people are half alive, for they breathe just enough to sustain life, effortless and nearly lifeless. We should breathe pure air, and in the greatest possible quantity.

Sunshine helps to cure tuberculosis. The more the better, because sunshine is a deadly enemy of the tubercle bacilli, and it kills these bacilli from a few minutes to several hours.

Food, that is pure, nourishing and easily digested, sufficient to cause a steady gain in the weight of the patient until he regains his normal weight. Among the nitrogenous, or flesh-forming foods that the patient can usually use freely are milk and eggs.

The patient should take no exercise without a physician's permission.

Don't attempt to get along without a skilled physician, or the experiment may cost you your life. Tuberculosis, even in the early stages is a severe disease, and should be treated throughout its whole course with the greatest of care, and with the most unwearied patience.

COMMUNICABLE DISEASES REPORTED FOR THE MONTH OF DECEMBER, 1911.

SMALLPOX—Cases of Smallpox were reported as follows: Chouteau, 1; Custer 4; Cascade (Excl. of Great Falls), 3; Great Falls, 7; Missoula (Excl. of Missoula City), 2; Missoula City, 7; Silver Bow (Excl. of Butte), 1; Sanders, 5; total, 30; total last month, 16.

DIPHTHERIA—Cases of Diphtheria were reported as follows: Chouteau, 2; Carbon, 3; Anaconda, 1; Dawson, 6; Bozeman, 1; Lincoln, 1; Missoula (Excl. of Missoula City), 1; Missoula, 1; Silver Bow (Excl. of Butte) 3; Butte, 4; Teton, 2; Billings, 1; total, 26; total last month, 30.

SCARLET FEVER—Cases of Scarlet Fever were reported as follows: Chouteau, 3; Carbon, 5; Custer, 1; Dawson, 3; Fergus, 2; Gallatin (Excl. of Bozeman), 3; Bozeman, 2; Lewis and Clark (Excl. of Helena), 1; Powell, 5; Park (Excl. of Livingston), 1; Livingston, 1; Silver Bow (Excl. of Butte), 8; Butte, 4; Teton, 1; total, 40; total last month, 30.

TYPHOID FEVER—Cases of Typhoid Fever were reported as follows: Chouteau, 1; Custer, 5; Dawson, 3; Fergus, 2; Flathead, 1; Helena, 1; Powell, 1; Rosebud, 3; total, 17; total last month, 41.

MEASLES—Cases of Measles were reported as follows: Helena, 1; Missoula City, 3; Butte, 1; Billings, 2; total, 7; total last month, 8.

We note quite a number of cases of typhoid fever reported for the month of December. Typhoid fever at this season of the year is a result of polluted water or other food products, very probably milk, the milk becoming polluted by use of impure water. Localities from which typhoid fever is reported at this season of the year should look carefully into their water supplies.

We also notice that a larger number of cases of chickenpox have been reported. Let me call the attention of the people and of the Health Officers especially to the fact that the records of this office show that there has not been a large number of cases of chickenpox reported in any locality in this State that has not followed by an outbreak of smallpox. Look out for these cases of chickenpox. They are sometimes smallpox.

**DEATHS (EXCLUSIVE OF STILLBIRTHS) REPORTED TO THE STATE
BOARD OF HEALTH FOR THE MONTH OF DECEMBER, 1911,
ARRANGED ACCORDING TO COUNTIES AND CITIES.**

| Totals | All Other Causes | Alcoholism | Suicide | Violence | Acute Intestinal Diseases | Malignant Tumors | Organic Heart Disease | Nephritis | Pneumonia | Whooping Cough | Meningitis | Typhoid Fever | Measles | Scarlet Fever | Diphtheria | Tuberculosis | Small Pox | Spotted Fever |
|----------------------------|------------------|------------|---------|----------|---------------------------|------------------|-----------------------|-----------|-----------|----------------|------------|---------------|---------|---------------|------------|--------------|-----------|---------------|
| Beaverhead | 2 | | | | | | | 1 | | | | | | | | | | |
| Broadwater | 2 | | | | | | | | | | | | | | | | | |
| Carbon | 7 | 4 | | | | | | | 1 | | | | | | 1 | | | |
| Cascade (Excl. of) | 6 | | | | | | | | | | | 1 | | | | | | |
| Great Falls | 18 | 5 | | | | | | 2 | | | | | | | 3 | | | |
| Chouteau | 4 | | | | | | | | | | | | | | | | | |
| Custer | 9 | | | | | | | | 3 | | | | | | | | | |
| Dawson | 7 | | | | | | | | | | | 1 | | | | | | |
| Deer Lodge (Excl. of) | 10 | 4 | | | | | | | | | | | | 1 | | | | |
| Anaconda | 8 | | | | | | | 1 | | | | | | | | | | |
| Fergus | 13 | 5 | | | | | | 2 | | | | | | | 1 | | | |
| Flathead (Excl. of) | 3 | | | | | | | | | | | | | | | | | |
| Kalispell | 3 | | | | | | | | | | | | | | | | | |
| Gallatin (Excl. of) | 8 | | | | | | | | | | | | | | | | | |
| Bozeman | 5 | | | | | | | | | | | | | | | | | |
| Granite | 1 | | | | | | | | | | | | | | | | | |
| Jefferson | 3 | | | | | | | | | | | | | | | | | |
| Lewis and Clerk (Excl. of) | 7 | 2 | | | | | | | | | | | | 1 | | | | |
| Helena | 7 | | | | | | | 1 | | | | | | | | | | |
| Lincoln | 5 | 2 | | | | | | 1 | | | | | | | | | | |
| Madison | 5 | | | | | | | 1 | | | | | | | 1 | | | |
| Meagher | 6 | | | | | | | | | | | | | | | | | |
| Missoula (Excl. of) | 1 | | | | | | | | | | | | | | | | | |
| Missoula City | 15 | 8 | | | | | | 3 | | | | | | | | | | |
| Musselshell | 6 | | | | | | | | | | | | | | | | | |
| Park (Excl. of) | 3 | | | | | | | | | | | | | | | | | |
| Livingston | 5 | 2 | | | | | | | | | | | | | | | | |
| Powell | 6 | | | | | | | | | | | | | 1 | | | | |
| Ravalli | 9 | | | | | | | | | | | | | | | | | |
| Rosebud | 4 | | | | | | | | | | | | | | | | | |
| Sanders | 7 | | | | | | | | | | | | | | | | | |
| Silver Bow (Excl. of) | 18 | | | | | | | 2 | | | | | | | | | | |
| Butte | 68 | 24 | 3 | | | | | 4 | | | | | | | | | | |
| Sweet Grass | 3 | | | | | | | | | | | | | | | | | |
| Teton | 4 | | | | | | | | | | | | | | | | | |
| Valley | 2 | | | | | | | | | | | | | | | | | |
| Yellowstone (Excl. of) | 2 | | | | | | | | | | | | | | | | | |
| Billings | 16 | 5 | | | | | | 3 | | | | | | | | | | |
| Total | 318 | 117 | 8 | 11 | 3 | 40 | 12 | 23 | 31 | 4 | 5 | 3 | | 3 | 5 | | 29 | |

Population—375,000.
Monthly death rate per 1,000 population—8.48.
Annual death rate per 1,000 population—10.17.

**BIRTHS REPORTED TO THE STATE BOARD OF HEALTH FOR THE
MONTH OF DECEMBER, 1911, AND COMPARATIVE BIRTH AND
DEATH RECORD IN THE STATE.**

| | Males | Females | Totals | Deaths | Excess of births | Excess of deaths |
|----------------------------------|-------|---------|--------|--------|------------------|------------------|
| Beaverhead | 5 | 8 | 13 | 2 | 11 | |
| Broadwater | ... | 4 | 4 | 3 | 1 | |
| Carbon | 20 | 13 | 33 | 7 | 26 | |
| Cascade (Excl. of) | 4 | 8 | 12 | 6 | 6 | |
| Great Falls | 23 | 14 | 37 | 18 | 19 | |
| Chouteau | 18 | 6 | 24 | 9 | 15 | |
| Custer | 5 | 9 | 14 | 7 | 7 | |
| Dawson | 12 | 11 | 23 | 10 | 13 | |
| Deer Lodge (Excl. of) | 5 | 1 | 1 | 8 | ... | 7 |
| Anaconda | 8 | 6 | 14 | 10 | 4 | |
| Fergus | 12 | 14 | 26 | 13 | 13 | |
| Flathead (Excl. of) | 12 | 4 | 16 | 3 | 13 | |
| Kalispell | 3 | 4 | 7 | 3 | 4 | |
| Gallatin (Excl. of) | 7 | 9 | 16 | 8 | 8 | |
| Bozeman | 5 | 5 | 10 | 5 | 5 | |
| Granite | 1 | ... | 1 | 1 | ... | |
| Jefferson | 5 | 1 | 6 | 3 | 3 | |
| Lewis and Clark (Excl. of) | 3 | 3 | 6 | 7 | ... | 1 |
| Helena | 11 | 15 | 26 | 7 | 19 | |
| Lincoln | 7 | 3 | 10 | 5 | 5 | |
| Madison | 10 | 5 | 15 | 5 | 10 | |
| Meagher | 4 | 3 | 7 | 6 | 1 | |
| Missoula (Excl. of) | 8 | 5 | 13 | 6 | 7 | |
| Missoula City | 12 | 8 | 20 | 15 | 5 | |
| Musselshell | 8 | 4 | 12 | 9 | 3 | |
| Park (Excl. of) | 5 | 2 | 7 | 3 | 4 | |
| Livingston | 10 | 7 | 17 | 6 | 11 | |
| Powell | 5 | 3 | 8 | 5 | 3 | |
| Ravalli | 8 | 7 | 15 | 9 | 6 | |
| Rosebud | ... | 3 | 3 | 4 | ... | 1 |
| Sanders | 4 | 4 | 8 | 2 | 6 | |
| Silver Bow (Excl. of) | 8 | 9 | 17 | 18 | ... | 1 |
| Butte | 32 | 25 | 57 | 68 | ... | 11 |
| Sweet Grass | 2 | 2 | 4 | 3 | 1 | |
| Teton | 10 | 7 | 17 | 4 | 13 | |
| Valley | 12 | 6 | 18 | 2 | 16 | |
| Yellowstone (Excl. of) | 11 | 12 | 23 | 2 | 21 | |
| Billings | 19 | 14 | 33 | 16 | 17 | |
| Totals | 329 | 264 | 593 | 318 | 296 | |

